Communicating Monitoring Results that People Can Understand

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Biographical Sketch
Abby is an outreach specialist with Tetra Tech, Inc., an environmental consulting firm. She has over 10 years of experience in the areas of training, facilitation, communication, community outreach, and volunteer monitoring. Abby is an experienced speaker, writer, facilitator and trainer on a wide variety of environmental, organizational and programmatic issues such as non-point source pollution prevention, environmental stewardship, grassroots fundraising, strategic planning, community leadership development, and volunteer environmental monitoring. She has been active in the state, regional, and national volunteer monitoring communities, participating in the development of guidance, training, education, and networking documents and conferences.

Abstract
How and why to craft tools that communicate monitoring results is the focus of this workshop. Communicating monitoring results in a format that can be understood by a variety of audiences goes beyond charts, graphs, and plots. Citizens in the watershed need to understand the results to understand the causes and sources of water quality impairments. Decision-makers need to understand the results to develop effective management strategies. Managers need to understand the results to support future monitoring efforts. When communicating monitoring results, we need to ask and answer a series of questions, that, taken together, comprise the building blocks of effective outreach:

> ▸ What is our *objective*?
> ▸ Who is our *targeted audience*?
> ▸ What is the overall *message* we want to convey?
> ▸ What *format* (or how) are we going to use to convey the message?
> ▸ How will we *distribute* the message?
> ▸ How will we *evaluate* the success of this strategy?

The workshop (and this paper) will provide an overview of these basic building blocks. The workshop will also highlight and explore communication strategies developed and implemented by various programs. Specifically, we will examine outreach and communication strategies discussed in the following presentations:

> ▸ *USGS Provides Science-Based Insights for Improved Watershed Management*
> ▸ *Providing Water Quality Data for Research, Decision-Making, and Education: Houston-Galveston Area Council*
> ▸ *From the Mountains to the Sea: the State of Maryland's Freshwater Streams*

Once upon a time a state resource biologist told me a story. It went something like this:

> *A woman came into his office one day looking for information. She was an ordinary citizen, not representing an agency, the media, or an organization. She was a resident of the state and she had two seemingly basic questions. They were: 1) What is the health of our streams and rivers, and 2) Are they getting better or worse? However, as we all know, these questions are not as simple as they seem. Our friendly resource biologist didn't have a simple way to answer these questions or to communicate what answers he did have. He tried to explain that, and the woman wound up leaving frustrated and with a lack of confidence in the government's ability to determine the state of —much less protect—our natural resources. Our hero, the resource biologist, came to the following conclusion— he had to craft and design tools that would communicate monitoring results to a variety of audiences— including the folks who wander into the state offices every once in a while.*

How and why to craft tools that communicate results is the focus of this workshop. The workshop (and this paper) will provide an overview of the basic building blocks of effective outreach and communication. The workshop will also highlight and explore communication strategies developed and implemented by various programs. Specifically, we will examine outreach and communication strategies discussed in the following presentations:

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Creating effective communication tools requires developing a strategy by asking and answering a series of questions. Think of these questions as the building blocks of effective outreach strategies.

> ▸ What is our ***objective***?

> ▸ Who is our ***targeted audience***?

> ▸ What is the overall ***message*** we want to convey?

> ▸ What ***format*** are we going to use to convey the message?

> ▸ How will we ***distribute*** the message?

> ▸ How will we ***evaluate*** the success of this strategy?

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What is our objective?
It is important to begin with a clearly articulated objective. Objectives should be put into statements and should be specific, results-oriented, and include the desired outcome of the communication or outreach tool.

What is the main goal or objective for the communication tool you want to develop— what do you want to achieve? Do you want to use monitoring results to build stewardship of local waters? Do you want to make people aware of a specific water quality problem? Do you want to use the information to address management or community concerns regarding the effectiveness of certain BMPs? Do you want to use the information to educate residents about the importance of conserving water or having adequate stream buffers?

Let's think about this using a small fictional example: A city department of recreation and parks conducted an assessment of stream conditions within an urban park. The purpose of the study was to document the ecological condition of the creek that flows through the park— specifically the study looked at how a lack of a forested buffer within the park might affect the health of the stream. Due, in part, to the results of this and other studies, the city decided to implement a program—called *Growing, not Mowing*—to let an extended forested buffer grow up around the stream within the park. Using this example, an objective statement might be:

> *Our objective is to develop an outreach and communication strategy that educates people about the importance of riparian zones, that builds community support for the buffer program within the parks, and that promotes active community participation in the Growing, not Mowing program.*

Who is the targeted audience?
Once you have a clear set of objectives, you can begin to identify the group— or groups— of people that you want to reach. In the example above, one of our objectives is to build support for a stream buffer program within the park. Continuing with our parks example, think about who we might want to communicate the information to. City Council members? The mayor? The head of the Parks and Recreation department? People who live near the park? People who play in the park? All of the above? For this example, let's say the targeted audience is the community of people who live near and/or use the park for recreational purposes (bike riding, jogging/running, baseball/soccer, dog-walking, etc.).

Once you have decided on the audience or audiences, it is important to learn a bit about them by identifying and exploring some of the characteristics of that group, or community— learning about what makes them tick. The communication tools you develop must focus in on the audience's areas of interest and concern. Information, issues, ideas, and conclusions should be expressed and articulated in the context of the community's values and concerns. The following is a list of characteristics that are important in most communities— although you will probably not be able to research all of them in developing your communication strategy. Which of these characteristics might be the most relevant in developing outreach tools to achieve our stated objectives?

- ▸ geographic boundaries

- ▸ demographic data

- ▸ economic conditions and trends

- ▸ employment

- ▸ education

- ▸ environmental awareness and values

- ▸ governance

- ▸ infrastructure and public services

- ▸ local arts, history, and traditions

- ▸ local leisure and recreation

- ▸ natural resources and landscape

- ▸ property ownership

- ▸ public safety and health

There are many avenues you can take in researching or learning about your audience. For example, you can ask questions by conducting interviews, focus groups, surveys, or polls. Attending the meetings of community-based organizations is a great way to hear about issues or concerns. Try reading local community-based newsletters or newspapers. Observation is another excellent way to learn about groups— observing people in the park would be an important way to learn about how park use is connected to the community's sense of *local leisure and recreation* as well as their level of *environmental awareness and values.*

What is the overall message we want to convey?
The next step is to articulate the overall message that you want to communicate. Again, it is crucial to remember that the message needs to be specific to the target audience and have a direct connection or benefit to them. People are motivated by many things, including what they define for themselves as self-interest. For many folks, healthy streams and watersheds *are* part of their defined self-interest. But the many people probably don't see the direct benefit to them of forested buffers. This is one of the reasons for learning about your audience— to gage their level of environmental awareness and values (one of the characteristics above). Keep the following acronym in mind— WIFM, better known as *what's in it for me*. In framing a message or messages, focus on the economic, cultural, and safety benefits as well as the environmental benefits. Continuing with our example, what specifics about the benefits of *growing, not mowing* do we want to communicate? Some examples are:

- ▸ riparian zones help protect and restore water quality

- ▸ forested buffers will provide habitat for birds and other wildlife in the park

- ▸ buffers will reduce flooding and erosion in the park area

> ► *growing, not mowing* will save money be reducing the labor and equipment the city needs to maintain the park

> ► by creating a vegetative *wall* between the stream and the park's ball fields, growing the buffer zone may discourage unsupervised kids from playing too close to the stream

Often times, it is useful to frame the message in terms of *problems* (degraded water quality, erosion, high costs associated with mowing down to the stream) and *solutions* (developing and maintaining buffer zones). The monitoring results themselves are your primary tool for expressing the problem— use them to illustrate the problem. Always include specific actions the audience can take to be part of the solution— using our example, this might include participating in community tree-planting projects, spreading the word about the importance of buffers, and helping to organize a community-run buffer maintenance project. Whatever the message is, make it relevant to people in your audience by avoiding jargon and using examples that connect to people's real-life experiences.

What format are we going to use to convey the message?
Our next decision is to determine what format(s) we want to use to convey our message. Your objectives, targeted audience, and message will all contribute to how you decide to package the information. Most likely, an outreach strategy will include many communication formats. Examples include: newspaper articles, fact sheets, flyers, posters/displays, slide or video presentations, web sites , reports, technical articles, public service announcements, TV or radio interviews, and signs/billboards.

Use what you know about your audience to help determine how to communicate your message. A report may not be the best way to reach to people who use the park for biking or baseball. Those people might be best served by a permanent display in the park, or fact sheets posted in kiosks at the park entrances. However, a video presentation or graphic report might be a good way to educate managers about the need to expand the program into the city's other parks.

Communicating your results in a format that can be understood by a variety of audiences goes beyond charts, graphs, and plots. You have to match the format to the objective for the outreach or communication strategy. A 30-second public service announcement does not allow for in-depth discussion of your data showing how buffers reduce thermal pollution. However, that same PSA can be used to familiarize your audience with the slogan, *growing, not mowing* and to introduce the concept that shade and canopy are important for water quality. Fact sheets and brochures are good vehicles for briefly identifying problems and solutions and showing some graphics (charts, data graphs, photographs) illustrating the message. Web sites are another excellent way to graphically display information— including monitoring results. With a series of links and menus, users can customize the amount of information they get— a lot or a little. Reports are very useful formats for conveying lots of information in small pieces— through sections and chapters. Think of a report as a story or novel— with a beginning and an end. Often, report chapters and sections can then be used as foundations for other tools— flyers, fact sheets, newspaper articles. Again, use your report structure to emphasize problems/challenges and solutions/opportunities for change.

How will we distribute the message?
Every successful communication strategy includes a distribution plan. How are you going to make sure that people receive the message? Researching your audience may help you determine how people in that community get their information. Most people get messages from a combination of television, radio, internet, newspapers, and each other. Consider all of these vehicles when formulating a distribution plan.

If you plan to publish a report, how are you going to let people know it is available? Will the report be available online as well as in book format? A radio or newspaper PSA is a great way to let people know something is available. Fact sheets and flyers can be distributed door-to-door through a neighborhood literature drop (as is done in electoral campaigns). Signs and billboards can be posted strategically in places where members of the targeted audience are most likely to see them. Attending community meetings and watershed festivals are ways to distribute materials face-to-face and be on hand to answer questions.

A key component to distribution is building a system that allows others to hear the message and then communicate it to others. For example, by speaking at a community meeting and providing fact sheets, leaders of the community can then incorporate that fact sheet into the community association newsletter. By talking to 30 people, you may have created the opportunity to reach 300.

How will we evaluate the success of this strategy?
Distributing the message is not the end of the process. Developing increasingly successful communication strategies requires that we evaluate how well we did at each stage of the process and then use that evaluation to improve on future efforts. Go back to your original objectives— and think about ways to determine if those objectives were met. Many of the strategies used to research and learn about an audience can be used as evaluation tools. Asking questions— through interviews, surveys, questionnaires, focus groups, polls— can tell us how well the message was received. Did the audience understand what we were trying to convey? Did the message reach the targeted audience? Were members of the audience able and motivated to take the message and convey it to others. Evaluations should also examine ways to improve. Ask members of your targeted audience what they might do differently. Would they choose other formats or distribution mechanisms. If so, why?

Finding ways to quantitatively measure changes in the environment due to outreach is very difficult. However it is possible to explore if people report any changes in the ways they interact with the physical environment. What were the connections between the message and any decisions to change the way people behave?

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Outreach means communicating information to an audience and getting a response to that information. Communicating monitoring results must be a critical component of our overall outreach strategies. Citizens in the watershed need to understand the results to understand the causes and sources of water quality impairments. Decision-makers need to understand the results to develop effective management strategies. Managers need to understand the results to support future monitoring efforts.

By examining the building blocks of effective outreach we can begin to create tools that communicate to a variety of people and communities. When developing strategies, we need to ask— and answer— these questions: What is our *objective*? Who is our *targeted audience*? What is the overall *message* we want to convey? What *format* are we going to use to convey the message? How will we *distribute* the message? How will we *evaluate* the success of this strategy? The answers to these questions will provide us with a blueprint for developing effective ways to communicate results to the widest possible audience. The tools we create and the strategies we implement will provide one of the links that enable all of us to be well-informed, educated, and active stakeholders.